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# Island Hopping Transfer for Major Trauma Treatment and 5G Smart Ambulance

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## Abstract

In 2019, the National Cheng Kung University (NCKU) Hospital Department of Emergency Medicine proposed an “island hopping” strategy for patients with special injuries to shorten patient transportation time. Specifically, through the coordination of prehospital care and posthospital treatment, patients can be assessed and stabilized at an early stage within a short time and transferred safely to a medical center for appropriate treatment. Since 2020, 55 critically injured patients with unstable vital signs have been referred to NCKU Hospital from remote areas through this transfer model, with 43 of them discharged from the emergency department alive and receiving follow-up treatment. In 2022, NCKU Hospital Department of Emergency Medicine collaborated with FarEastone Telecom in formulating Version 2.0 of the island hopping strategy, which incorporates smart emergency care through the use of 5G technology to facilitate the implementation of video communication, remote monitoring, smart ambulances, and smart wearable devices. The smart emergency care model improves the quality and efficiency of prehospital care. This model shall constitute a pilot study for incorporating 5G communication technology as a key instrument for emergency medicine to benefit more patients.

**Keywords:** center of quality management, Excellent Center, innovative research and development, smart integration


# 重大創傷跳島轉診以及5G智慧救護車

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## 摘要

成大醫院急診部在2019年提出「特殊傷病患跳島策略」，縮短運送時間，透過連結院前救護和院後治療的方式，讓患者在短時間內得到初步評估和穩定生命跡象，並且安全轉送至醫學中心接受適切治療。自2020年起，已有55位生命徵象不穩定的重大傷病患透過此轉診模式由偏鄉地區轉診至成大，其中有43位存活離開急診並接受後續治療。2022年成大急診部與遠傳電信合作，推出2.0版本的跳島策略，透過5G科技導入智慧救護，包括視訊通訊、遠程監控、智慧救護車和智慧穿戴等，提高到院前的醫療品質和效率。期待已此模式當成一個“pilot study”；讓5G通訊技術在未來的緊急醫療中扮演更重要的角色，造福更多的病人。

**關鍵詞：**跳島策略、5G遠距、視訊眼鏡、智慧轉診、重大創傷